

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

1. (currently amended) A payment form discrimination method for discriminating a payment form which states at least a payee account number and a payment amount, comprising:

acquiring an image of the form by optically reading the form;
searching for the payee account number in the image ~~in at~~ an unknown position ~~of the form~~ in accordance with an account number searching rule; ~~and~~
~~discriminating the~~ determining a type of the form based on the ~~searched~~ payee account number from a document information table that stores account numbers correlated with types of the form; and

recovering other data from locations according to the determined type of the form,

wherein ~~said searching comprises:~~

~~recognizing said payee account number in accordance with said account number searching rule in a searching table which registers recognition categories and regularities regarding a character string from the acquired image to find the account number in the unknown position wherein said recognizing comprises:~~

~~searching for hyphens in the image; and~~

~~recognizing said payee account number in areas surrounding a hyphen found in the image; and~~

~~judging whether or not said recognized payee account number is matched with the registered account number in a account master table;~~

~~and wherein said discriminating comprises discriminating the type of form by referring to a document information table that stores the account number and its type of the form by said judged payee account number.~~

2-3. (cancelled)

4. (previously presented) The payment form discrimination method of claim 1, wherein the searching comprises:

recognizing a plurality of account numbers on the payment form; and
merging a plurality of results which have been recognized to determine the payee account number.

5. (previously presented) The payment form discrimination method of claim 1, further comprising:

subjecting the areas surrounding the found hyphen to character recognition in a specified recognition category, and determining whether the result of the character recognition has the specified regularities.

6. (currently amended) A payment form discrimination apparatus for recognizing a form which states a payee account number and a payment amount, comprising:

an image reader for acquiring an image of the form by optically reading the form; and
a processing unit, which performs searching for the payee account number in the image ~~in at an unknown position of the form in accordance with an account number searching rule, and discriminates the~~ determines a type of the form based on the searched corresponding to said payee account number from a document information table that stores numbers correlated with types of the form, and recovers other data from locations according to the determined type of the form;

~~wherein the processing unit recognizes respective areas of the image by corresponding recognition categories, depending on the type of form that has been discriminated,~~

~~wherein said searching comprises:~~

~~recognizing said payee account number in accordance with said account number searching rule in a searching table which registers recognition categories and regularities regarding a character string from the acquired image to find the account number in the unknown position; wherein said recognizing comprises:~~

~~searching for hyphens in the image; and~~

~~recognizing said payee account number in areas surrounding a hyphen found in the image; and~~

~~judging whether or not said recognized payee account number is matched with the registered account number in a account master table;~~

~~and wherein said discriminating comprises discriminating the type of form by referring a document information table that stores the account number and its type of the form by said judged payee account number.~~

7-8. (cancelled)

9. (previously presented) The payment form discrimination apparatus of claim 6, wherein the process unit recognizes a plurality of account numbers on the payment form, and merges a plurality of result which have been recognized to determine the payee account number.

10. (previously presented) The payment form discrimination apparatus of claim 6, wherein the process unit subjects the areas surrounding a found hyphen to character recognition in a specified recognition category, and determines whether the result of the character recognition has the specified regularities.

11. (previously presented) The payment form discrimination method according to claim 1, wherein said recognizing comprises:

recognizing a hyphens defined by said account number recognition category in said searching table from said image;

judging whether or not said recognized hyphens are characterizing hyphen registered in said account number construction rule in said searching table; and

character-recognizing an image on areas surrounding to said characterizing hyphen by a numeric and a hyphen that are account number recognition category in said searching table.

12. (previously presented) The payment form discrimination method according to claim 4, wherein said searching further comprises:

determining said recognized account number as a merging result from a reject number of plural said character recognition result and a number of recognition character as same character in a same column.

13. (previously presented) The payment form discrimination apparatus according to claim 6, wherein said processing unit recognizes a hyphens defined by said account number recognition category in said searching table from said image, judges whether or not said

recognized hyphens are characterizing hyphen registered in said account number construction rule in said searching table, and character-recognizes an image on areas surrounding to said characterizing hyphen by a numeric and a hyphen that are account number recognition category in said searching table.

14. (previously presented) The payment form discrimination apparatus according to claim 9, wherein said processing unit determines said recognized account number as a merging result from a reject number of plural said character recognition result and a number of recognition character as same character in a same column.

15. (currently amended) A method of determining a payment form type, comprising:
optically capturing an image of a payment form of an unknown type;
searching for and determining an account number in an unknown position of the payment form of the unknown type in the image; ~~wherein said searching for and determining the account number comprises:~~ by searching for hyphens in the image; and recognizing said payee account number at areas surrounding a hyphen found in the image; ~~and~~
determining the payment form type using the account number; and
recovering data from locations according to the determined payment form type.

16. (currently amended) A method of determining a type of a payment form which includes an account identifier, comprising:
generating an image of the payment form;
locating a predetermined character anywhere within the image, the predetermined character being part of the account identifier; ~~and~~
determining the type of the payment form based on the account identifier which includes the located predetermined character; and
recovering data from locations according to the determined type of the payment form.